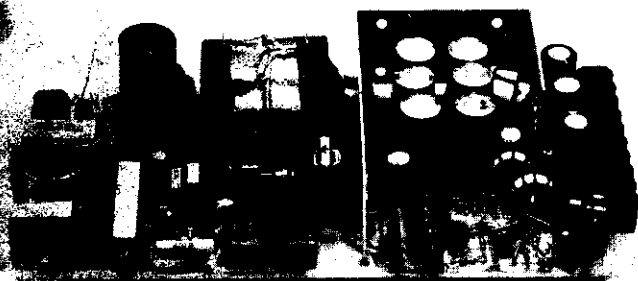


# SERIES XL100

## MULTIPLE OUTPUT SWITCHERS



### XL100

#### XL100 Features

The XL100 Series of 4 output 100 watt switching power supplies offers outstanding features, pricing and value.

Designed for microprocessor based applications, the XL100 Series power Winchester disks, floppy disks, tape cassettes and printers.

The XL100 is the XL125 with the fan removed and is rated at 100W output power in 50°C ambient with no airflow, and with no external heatsinking. External heatsinking or forced air can allow the XL100 to provide the same ratings as the XL125, as long as heatsink temperatures are kept below 90°C and semiconductor cases below 100°C under the worst-case system operating conditions.

#### STANDARD FEATURES

- Designed to meet VDE 0806 safety.
- Designed to meet VDE 0871 level A.
- Designed to meet FCC 20708 level B-EMI.
- Designed to meet IEC 380 safety.
- Designed to meet CSA C22.2 #154 safety.
- Designed to meet UL478 safety.
- 110VAC/220VAC user selectable input.
- Short circuit protection.
- Overvoltage protection (+5V output).
- Input surge current protection.
- 20KHz switching frequency (minimum).
- All models are provided with power fail detect output.

#### SELECTION GUIDE

Model Number	Output Voltages and Maximum Current			-5V	+24V	+12V	Rated Power	Max. Positive Current
XL100-3601	+5V	+12V	-12V	0.7A			100W	14A
XL100-3602	10A	4A	0.7A		3A		100W	14A
XL100-3603	10A	4A	0.7A			1.5A	100W	14A

To order models meeting British Telecom safety specifications, order -3801, -3802 or -3803 instead of -3601, -3602 or -3603.

To order models with the VDE safety sticker affixed, order -3601V, -3602V or -3603V. Please consult the factory.

To order models with the input voltage set for 220 VAC, order -4601, -4602, -4603, -4801, -4802, -4803, -4601V, -4602V or -4603V.

#### LOAD REGULATION

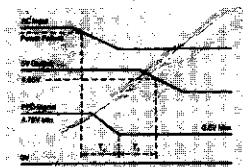
Load regulation depends strongly on how much power is drawn from each output and the minimum to maximum range of the current. The maximum current cannot be taken from all outputs simultaneously without possibly overheating the power supply or causing over-power shutdown.

Model Number	Output	Minimum	Maximum	Ripple	Tolerance
XL100-3601	+5V	2A	10A	50mV	±3%
	+12V	0.8A	4A	80mV	±4%
	-12V	0A	0.7A	50mV	±5%
	-5V	0A	0.7A	25mV	±5%
XL100-3602	+5V	2A	10A	50mV	±3%
	+12V	0.4A	4A	50mV	+2%-6%
	-12V	0A	0.7A	80mV	±5%
	+24V	1.0A	3A	80mV	+8%-3%
XL100-3603	+5V	2A	10A	50mV	±3%
	+12V	0.8A	4A	50mV	±4%
	+12V	0.5A	1.5A	50mV	±6%
	-12V	0A	0.7A	50mV	±5%

1) 50MHz bandwidth, peak to peak, measured differentially.

## ELECTRICAL CHARACTERISTICS

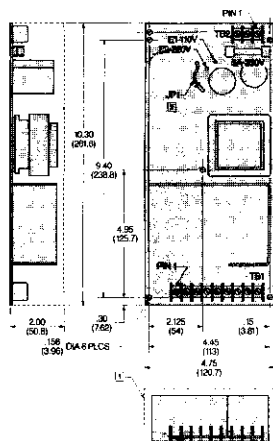
Parameter	Conditions	Limits
Input Voltage	All rated load conditions	90-132VAC 180-264VAC User selectable
Input Surge Current	115VAC, cold start, peak current	32A
Input Frequency Range		47Hz to 440Hz
Input Line Regulation	Low line to high line, full load	± 0.3% to all outputs
Efficiency	115VAC, 100W output	65% minimum
Output Power Range	50° ambient	20W to 100W
Hold-up Time	110VAC, 100W output	22mSec minimum
Adjustability	+5 output	4.8V to OVP trip point
Overvoltage Protection Threshold	±5V output	6.25V ± 0.75V
Temperature Coefficient of Outputs	All Outputs	± 0.04%/°C maximum
Safety Ground Leakage Current	240VAC, 60Hz	0.5mA maximum
Power Limit Point	All line and load conditions	140W minimum
Temperature Range	Operating ambient Storage ambient Maximum heatsink temperature Maximum semiconductor case temperature	0°C to +70°C -20°C to +85°C 90°C 100°C
Temperature Derating	Free air connection	Derate linearly from rated power at 50°C to half rated power at 70°C ambient
Altitude	Operating Non-operating	10,000 ft 30,000 ft
Relative Humidity	Non-condensing	5% to 95%
Vibration	Three principal axes 2G cycling or dwell type	5Hz to 60Hz at 3 minutes per octave
Transient Response	+5 output, 5A to 10A load change  +12V and +24 outputs, 2A to 4A load change	150mV peak transient setting to within 0.5% of regulation band 1mSec. 100mV peak transient setting to within 0.5% of regulation band 1mSec.
Power Fail Detect	Maximum sinking current open collector output	30mA minimum



T<sub>1</sub> will vary with line and load conditions.  
T<sub>2</sub> ≥ 10mS at low line and full load.

## MECHANICAL SPECIFICATIONS

Dimensions are in inches and (mm).  
All tolerances are less than ± 0.03 inches (0.76 mm).



### PIN CHARTS

	XL100/3601	XL100/3602	XL100/3603
<b>TB2</b> Term 1	AC Hot	AC Hot	AC Hot
Term 2	AC Ground	AC Ground	AC Ground
Term 3	AC Neutral/Hot	AC Neutral/Hot	AC Neutral/Hot
<b>TB1</b> Term 1	P.F.D.	P.F.D.	P.F.D.
Term 2	-12V	-12V	-12V
Term 3	+12V	+12V	+12V
Term 4	-5V	+24V	+12V
Term 5	Return	Return	Return
Term 6	Return	Return	Return
Term 7	Return	Return	Return
Term 8	+5V	+5V	+5V
Term 9	+5V	+5V	+5V

- 1 Dashed line indicates minimum clearance.  
2 Connect JP1 to E1 for 110V operation.  
Connect JP1 to E2 for 220V operation.  
3 Dimensions for reference only.

### Connector Type

TB1 is Beu Inc.  
P/N 72-5-09C  
TB2 is Beu Inc.  
P/N 72-5-03C  
6-32 screws on 0.375 in.  
centers

### Fuse Type

5A, 250VAC  
3AE, Normal Blow

**Boschert Incorporated**  
384 Santa Trinita Avenue  
Sunnyvale, California 94086  
408/732-2440 TWX 910-339-9241

